

REMARKS

Favorable reconsideration of this application in light of the above amendments and the following remarks is respectfully requested. Claims 1-6 and 13-18 are pending in this application. No claims are amended herein. Claims 13-18 are newly added herein. No claims are allowed.

Claim Rejections – 35 U.S.C. § 102

Claims 1-6 are rejected under 35 U.S.C. § 102(e) as being anticipated by Nguyen et al. (U.S. Patent No. 6,122,566; hereinafter “Nguyen”).

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” MPEP 2131 (citing *Verdegaal Bros. V. Union Oil of California* (citation omitted)).

The Examiner reads Nguyen onto applicant’s claims 1-6 and concludes that Nguyen teach all elements within applicant’s claims 1-6.

In response, applicant respectfully disagrees with the Examiner’s reading of Nguyen insofar as the Examiner asserts that each and every element of applicant’s claim 1 is taught within Nguyen.

Rather, applicant notes that applicant’s claim 1, clause 2 provides for “defining for each chamber within the series of chambers [within a multi-chamber fabrication tool] a minimum of one fabrication process to provide a series of fabrication processes corresponding with the series of chambers, wherein at least one fabrication process may be undertaken within more than one chamber and at least one chamber has defined therein more than one fabrication process including the at least one fabrication process which may be undertaken within more than one chamber; ” (emphasis added). Thus, applicant’s claim 1, clause 2 claims a multi-chamber

fabrication tool having: (1) a least one fabrication process undertaken within more than one chamber; and (2) at least one chamber having more than one fabrication process including the at least one fabrication process undertaken within more than one chamber. The Examiner asserts that the first of the foregoing elements of applicant's invention at claim 1, clause 2 is taught within Nguyen at col. 9, lines 29-40.

Nguyen at col. 9, lines 29-40 teaches with respect Nguyen's Fig. 8b that:

"The routine in block 242 initially reads the chamber identification of the chamber that presently contains the wafer (source chamber) and determines whether it is a group chamber, i.e., whether there are a number of destination chambers which may receive the wafer for the next step. If the chamber is not a group chamber, then the routine uses the particular chamber ID number found and proceeds to block 246. If the chamber identification indicates that the wafer is contained within a group chamber, then by looking through the chamber data structure for each chamber of the group, the next available chamber of the group is chosen by reading the recipe remaining time in block 244."

Applicant thus understands that Nguyen, as cited by the Examiner, teaches a source chamber that may be a group chamber within a multi-chamber fabrication tool. The group chamber serves as a chamber from which there may be multiple destination chambers for a wafer that is resident within the group chamber. Applicant asserts that a group chamber does not read upon applicant's element of "at least one fabrication process [being] undertaken within more than one chamber" as in applicant's claim 1, clause 2. Rather, a group chamber apparently simply provides for multiple destinations for a wafer resident therein. Applicant is unable to ascertain any intrinsic, inherent, implicit or explicit relationship that the presence or use of a group chamber within a multi-chamber fabrication tool of necessity provides that at least one fabrication process is undertaken within more than one destination chamber within the multi-chamber fabrication tool.

Nguyen at col. 4, lines 19-24 does in fact apparently provide some guidance as to whether Nguyen might teach a fabrication process being undertaken in more than one chamber within Nguyen's multi-chamber fabrication tool 10 as illustrated in Fig. 1. Nguyen at col. 4, lines 19-20 teaches that Nguyen's "cluster tool 10 contains, for example, four process chambers (PC1-PC4)" Nguyen at col. 4, lines 22-24 further teaches that "[e]ach process chamber represents a different stage or phase of semiconductor wafer processing."

Applicant thus understands that since Nguyen teaches that "[e]ach process chamber represents a different stage or phase of semiconductor wafer processing," Nguyen clearly does not teach that "at least one fabrication process may be undertaken in more than one chamber," in accord with applicant's invention as disclosed and claimed within claim 1. Clearly, if each of Nguyen's process chambers PC1-PC4 represents a different stage of semiconductor wafer processing, then no one fabrication process may be undertaken in more than one chamber within Nguyen's multi-chamber fabrication tool.

Since each and every limitation within applicant's invention as disclosed and claimed within claim 1 is not taught within Nguyen with respect to at least one fabrication process being undertaken in more than one chamber of a multi-chamber fabrication tool, applicant asserts that claim 1 may not properly be rejected under 35 U.S.C. § 102(e) as being anticipated by Nguyen. Since all remaining claims within this application are dependent upon claim 1 and carry all of the limitations of claim 1, applicant additionally asserts that those remaining claims may also not properly be rejected under 35 U.S.C. § 102(e) as being anticipated by Nguyen.

In light of the foregoing response, applicant respectfully requests that the Examiner's rejections of claims 1-6 under 35 U.S.C. § 102(e) as being anticipated by Nguyen be withdrawn.

Other Considerations

Applicant has newly added claims 13-18 which are styled after claims 1-6, but wherein within claim 13 in comparison with claim 1 there is omitted the limitation of "at least one chamber [having] defined therein more than one fabrication process including the at least one fabrication process which may be undertaken within more than one chamber."

The Examiner has cited no additional prior art of record not employed in rejecting applicant's claims to applicant's invention. No fee is due as a result of this response.

SUMMARY

Applicant's invention as disclosed and claimed within claim 1 is directed towards a method for operating a multi-chamber fabrication tool. The method provides for optimizing tool utilization within a multi-chamber fabrication tool having: (1) at least one fabrication process that may be undertaken within more than one chamber; and (2) at least one chamber that has defined therein more than one fabrication process including the at least one fabrication process which may be undertaken within more than one chamber. Each and every limitation within applicant's invention is not taught by the applied prior art.

CONCLUSION

On the basis of the above remarks, favorable reconsideration of this application, and its early allowance, are respectfully requested.

Any inquiries relating to this or previous communications pertaining to this application may be directed towards the undersigned attorney at 248-540-4040, at the Examiner's convenience.

Respectfully submitted,

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